

AMENDMENTS TO THE CLAIMS

Applicants submit below a complete listing of the current claims, including marked-up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing. This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Currently amended) A computing system supporting network selection based upon network information spanning multiple communication media, the system comprising:

a rules data store for maintaining network selection criteria;

a media specific module interface for providing accumulated network interface information spanning multiple communication media, the accumulated network interface information being associated with a set of networks and a set of network interfaces, each network interface for connecting the computing system to a network in the set of networks;

a rules engine, comprising at least one processor, for designating one of the set of networks by applying a network selection criterion from the rules data store to the accumulated network interface information spanning multiple media; and

~~a scanning engine, associated with at least one network interface among the set of network interfaces, for adaptively controlling a scanning delay period based at least upon results of a plurality of previous scans~~

a plurality of media specific modules configured to acquire network interface information pertaining to network interfaces associated with particular media types, and to receive network interface configuration commands, from the rules engine, to connect to one of the set of networks, each of the media specific modules configured to acquire network interface information from media specific drivers associated with particular interfaces.

wherein the media specific module interface comprises a normalization module that converts standardized communication requests it receives from the rules engine into media specific communications that meet media specific implementation requirements, the normalization module further configured to direct the media specific communications to respective network interfaces.

2. (Previously presented) The computing system of claim 1 wherein the rules engine has access to the rules data store.

3-4. (Canceled)

5. (Currently amended) The computing system of claim 4 wherein the media specific modules acquire network interface information from 1, further comprising a plurality of media specific drivers, each of the drivers associated with a particular network interface.

6-7. (Canceled)

8. (Original) The computing system of claim 1 wherein the network selection criterion specifies a preference order between at least two media based upon a network parameter associated with the media.

9. (Original) The computing system of claim 1 wherein the network selection criterion specifies a preference order between at least two media based upon a network type associated with the media.

10. (Original) The computing system of claim 1 wherein the network selection criterion specifies a preference order based upon a current location of the computing system.

11. (Original) The computing system of claim 1 wherein the network selection criterion specifies a preference order between logical networks.

12. (Previously presented) The computing system of claim 1 wherein the network selection criterion specifies a preference order based upon a network time of use parameter.

13. (Previously presented) The computing system of claim 1 wherein the rules engine is incorporated into a state machine that cyclically scans a set of network interfaces for networks, applies the network selection criterion to a set of networks and interfaces to render a current network and interface selection, and issues configuration instructions in accordance with the current network and interface selection.

14. (Canceled)

15. (Currently amended) A method for selecting a network and interface combination, to which a computing system will initiate a connection via the network interface, based upon network information spanning multiple communication media, the method comprising:

accessing network selection criteria acquired from a plurality of sources, the plurality of sources including a programming interface coupled to a user interface, the programming interface configured to provide commands for the multiple communication media in a common format based on user input through the user interface and at least one of a group policy service and a provisioning service;

accumulating network interface information spanning multiple communication media associated with a set of networks and the set of network interfaces, each network interface for connecting the computing system to a network in the set of networks, the accumulating facilitated by a normalization module that converts standardized commands it receives from a rules engine into media specific commands that meet media specific implementation requirements, and provides the media specific commands to a set of media specific modules;

designating, via the rules engine, one of the set of networks and a network interface from the set of network interfaces by applying a network selection criterion to the network interface information spanning multiple media; and

initiating network scanning for a designated one or more of the set of network interfaces based at least in part upon a scanning algorithm that adaptively changes a scanning frequency based at least upon results of a plurality of previous scans.

16. (Original) The method of claim 15 wherein the network selection criterion is accessed from a configurable rules data store.

17. (Original) The method of claim 15 further comprising issuing network interface configuration instructions in accordance with the designating step.

18. (Previously presented) The method of claim 15 wherein the media specific modules are each associated with at least one distinct type of communication media driver.

19. (Original) The method of claim 18 further comprising acquiring, by the media specific modules, network interface information from the communication media drivers associated with particular network interfaces.

20. (Canceled)

21. (Original) The method of claim 15 wherein the network selection criterion specifies a preference order between at least two media based upon a network parameter associated with the media.

22. (Original) The method of claim 15 wherein the network selection criterion specifies a preference order between at least two media based upon a network type associated with the media.

23. (Original) The method of claim 15 wherein the network selection criterion specifies a preference order based upon a current location of the computing system.

24. (Original) The method of claim 15 wherein the network selection criterion specifies a preference order between logical networks.

25. (Previously presented) The method of claim 15 wherein the network selection criterion specifies a preference order based upon a network time of use parameter.

26. (Previously presented) The method of claim 15 wherein the designating comprises evaluating in a rules engine at least one of the network selection criteria based on the accumulated network interface information, and the method further comprises cyclically performing, under the control of a state machine: scanning a set of network interfaces for networks; applying, with the rules engine, the network selection criterion to a set of networks and interfaces to render a current network and interface selection; and issuing configuration instructions in accordance with the current network and interface selection.

27. (Canceled)

28. (Currently amended) A computer-readable medium including computer-executable instructions for facilitating selecting a network and interface combination, to which a computing system will initiate a connection via the network interface, based upon network information spanning multiple communication media, the computer-executable instructions facilitating:

accessing network selection criteria acquired from a plurality of sources;

accumulating network interface information comprising status and capability information for each of spanning multiple communication media associated with a set of networks and a set of network interfaces, each network interface for connecting the computing system to a network in the set of networks, the accumulating facilitated by a normalization module that provides an interface that standardizes communication between a rules engine and a set of media specific modules, each media specific module being associated with multiple a distinct type[[s]] of communication media drivers and a rules engine; and

designating, via the rules engine, one of the set of networks and a network interface from the set of network interfaces by applying a network selection criterion to the network interface information spanning for the multiple media.

29. (Original) The computer-readable medium of claim 28 wherein the network selection criterion is accessed from a configurable rules data store.

30. (Original) The computer-readable medium of claim 28 wherein the computer-executable instructions further facilitate issuing network interface configuration instructions in accordance with the designating step.

31. (Canceled)

32. (Previously presented) The computer-readable medium of claim 28 further comprising computer-executable instructions for acquiring, by the media specific modules, network interface information from the communication media drivers associated with particular network interfaces.

33. (Canceled)

34. (Original) The computer-readable medium of claim 28 wherein the network selection criterion specifies a preference order between at least two media based upon a network parameter associated with the media.

35. (Original) The computer-readable medium of claim 28 wherein the network selection criterion specifies a preference order between at least two media based upon a network type associated with the media.

36. (Original) The computer-readable medium of claim 28 wherein the network selection criterion specifies a preference order based upon a current location of the computing system.

37. (Original) The computer-readable medium of claim 28 wherein the network selection criterion specifies a preference order between logical networks.

38. (Previously presented) The computer-readable medium of claim 28 wherein the network selection criterion specifies a preference order based upon a network time of use parameter.

39. (Previously presented) The computer-readable medium of claim 28 wherein the computer-executable instructions comprises a rules engine for evaluating at least one of the network selection criteria based on the accumulated network interface information, and further comprising computer-executable instructions for cyclically performing, under the control of a state machine: scanning a set of network interfaces for networks; applying, with the rules engine, the network selection criterion to a set of networks and interfaces to render a current network and interface selection; and issuing configuration instructions in accordance with the current network and interface selection.

40. (Canceled)

41. (Previously presented) The computing system of claim 1 wherein:
the rules data store maintains network selection criteria acquired from a plurality of sources,
and
the plurality of sources of the network selection criteria comprise a user interface and a group policy service.

42. (Previously presented) The computing system of claim 41 wherein the sources network selection criteria are acquired from include a provisioning service.

43. (Canceled)

44. (Previously presented) The method of claim 28 wherein the plurality of sources of the network selection criteria are acquired from include a provisioning service.

45. (Previously presented) The computing system of claim 1, wherein the scanning engine increases the scanning delay period when the plurality of previous scans indicate there is no change in state.

46. (Previously presented) The computing system of claim 1, wherein the scanning engine performs a scan when the plurality of previous scans indicate movement of the computing system.

47. (Previously presented) The computing system of claim 46, wherein the scanning engine determines the computing system is moving based on at least one of received signal strength, retransmission counts, or frame error rates.

48. (Previously presented) The computing system of claim 1, wherein the scanning engine is configured to detect a network interface to be scanned is sending traffic, and when said network interface is sending traffic, the scanning engine analyzes statistics for the traffic sent to determine whether a scanning period is to be skipped.

49. (Previously presented) The computer-readable medium of claim 28, further comprising:

receiving a notification that a new network interface is available; and

loading another media specific module corresponding to said new network interface, said media specific module configured to request network interface information from a driver for said network interface.